We claim:

1. **A device for processing** the surface of objects comprising a predetermined number of processing stations (B_1-B_8) performing processing processes and a conveying unit performing processing movements, by means of which said objects are transported into predetermined desired positions at said processing stations (B_1-B_8),
characterized by a central controller (7),
by means of which the processing movements of said conveying unit and the processing processes of said processing stations are synchronized by presetting a clock pulse being correlated with the processing movement of the object (3) to be processed and controlling the respective processing process via said central controller (7) for each processing station (B_1-B_8).

2. The device according to claim 1, characterized in that a predetermined number of said processing stations (B_1-B_8) is constituted by one printing unit each.

3. The device according to claim 2, characterized in that at least one of said printing units comprises an inkjet printing head (6).

4. The device according to any one of claims 2 or 3, characterized in that at least one of said printing units comprises a printing roller (5).

5. The device according to any one of claims 1 to 4, characterized in that at least one of said processing stations (B_1-B_8) is constituted by an inspection unit.

6. The device according to any one of claims 1 to 5, characterized in that rotationally symmetrical objects (3) are processed therewith.

7. The device according to claim 6, characterized in that said rotationally symmetrical objects (3) comprise beverage cans, beverage bottles or cups.

8. The device according to any one of claims 6 or 7, characterized in that said conveying unit comprises a rotary cycle apparatus (2), on which said rotationally symmetrical objects (3) are arranged in the circumferential direction and may each be set into rotation by means of a conveyor drive means.

9. The device according to claim 8, characterized in that said rotationally symmetrical objects (3) are each rotationally journalled with respect to their axis of rotation.

10. The device according to any one of claims 1 to 9, characterized in that starting signals are generated in the central controller (7), by means of which the processing processes of the individual processing stations may be started individually.

11. The device according to any one of claims 1 to 10, characterized in that, by predetermining the duration of the transmission of said clock pulse to a processing station (B_1-B_8), the duration of the processing process for this processing station (B_1-B_8) may be predefined by the central controller (7).

12. The device according to any one of claims 8 to 11, characterized in that one incremental encoder (13) each is provided for detecting the rotary position of said objects (3).

13. The device according to claim 12, characterized in that said drive means for generating rotation in dependence upon the signals of said incremental encoder (13) are position controlled.

14. The device according to any one of claims 1 to 13, characterized in that a lead frequency defining the clock pulse may be preset by said central controller (7).

15. The device according to claim 14, characterized in that said lead frequency may be adjusted in said controller (7).

16. The device according to any one of claims 14 or 15, characterized in that said lead frequency is transmitted to a computing unit (9) for synchronizing the rotation of said objects (3) generated by means of said drive means and to said processing stations (B_1-B_8) for controlling the processing processes.

17. The device according to claim 16, characterized in that said computing unit (9) is stationary arranged.

18. The device according to claim 16, characterized in that said computing unit (9) is arranged on said rotary cycle apparatus (2).

19. The device according to any one of claims 16 to 18, characterized in that said lead frequency and the signals of said incremental encoders (13) constitute input quantities for the position control of the respective drive means.

20. The device according to any one of claims 16 to 19, characterized in that said lead frequency may be adapted to the operating frequencies of said processing stations (B_1-B_8).

21. The device according to claim 20, characterized in that said lead frequency is adapted to the output frequency constituting an operating frequency of inkjet droplets of an inkjet printing head (6).

22. The device according to any one of claims 1 to 13, characterized in that an individual clock pulse for controlling the respective processing process is generated in said central controller (7) for each processing station (B_1-B_8), wherein said clock pulse is derived from the cyclically and currently detected position values and detection times of the position values of the processing movement of the respective object (3) to be processed.

23. The device according to claim 22, characterized in that the position values as well as the detection times of the position values of said objects (3) detected by said incremental encoders (13) are detected and stored as data sets in an evaluation unit (15).

24. The device according to claim 23, characterized in that said clock pulse for a processing station (B_1-B_8) is composed of a series of counting pulses following the increments of the respective incremental encoder (13), which counting pulses are derived from the data sets stored in said evaluation unit (15).

25. The device according to claim 24, characterized in that said counting pulses are each generated in a frequency generator (16) controlling the respective processing station (B_1-B_8).

26. The device according to claim 25, characterized in that the output signals generated by a frequency generator (16) are re-read into said central controller (7).

27. The device according to claim 26, characterized in that control loops for generating said counting pulses are provided in said central controller (7), wherein said re-read output signals of said frequency generators (16) constitute instantaneous values of said control loops.

28. The device according to any one of claims 24 to 27, characterized in that the intervals of the individual counting pulses are shorter than the cycle time of said central controller (7).

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